

Restriction Requirement Response  
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Docket No. ORW01-GN003

In the Claims:

1. A prosthetic stabilizing device for use with a knee replacement prosthesis that includes a tibial component adapted to be mounted to a patient's tibia and a femoral component adapted to be mounted to the patient's femur, where the tibial component interfaces with the femoral component to simulate the biomechanics of a knee joint, the stabilizing device comprising:

a lining adapted to be mounted to at least one of a tibial component of a knee replacement prosthesis and a femoral component of the knee replacement prosthesis so that the lining is positioned between the tibial component and the femoral component approximate a prosthetic intercondylar channel of the femoral component to supplement periarticular stability between the tibial component and the femoral component;

the lining being comprised of a lining material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

2. The prosthetic stabilizing device of claim 1, further comprising at least one fastener for mounting the lining to the at least one of the tibial component and the femoral component, wherein the fasteners are comprised of a fastener material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

3. The prosthetic stabilizing device of claim 2, wherein the fastener material includes at least one, or an equivalent, of:

a poly-L-lactic acid material; and  
collagen.

4. The prosthetic stabilizing device of claim 2, wherein the fasteners are taken from a group consisting of:

screws;  
snaps;

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clips;  
keyways; and  
rivets.

5. The prosthetic stabilizing device of claim 1, wherein the lining material includes at least one, or an equivalent, of:

extra cellular matrices (ECMs);  
poliglecaprone 25;  
polydioxanone;  
surgical gut suture (SGS);  
gut;  
polyglactin 910;  
human autograft tendon material;  
collagen fiber;  
poly-L-lactic acid (PLLA);  
polylactic acid (PLA);  
polylactides (Pla);  
racemic form of polylactide (D,L-Pla);  
poly(L-lactide-co-D,L-lactide);  
polyglycolides (PGa);  
polyglycolic acid (PGA);  
polycaprolactone (PCL);  
polydioxanone (PDS);  
polyhydroxyacids; and  
resorbable plate material.

6. The prosthetic stabilizing device of claim 5, wherein the extra cellular matrices (ECMs) includes at least one, or an equivalent, of:

porcine small intestine submucosa (SIS);  
xenogeneic small intestine submucosa (xSIS);

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urinary bladder submucosa (UBS);  
laminated intestinal submucosa; and  
glutaraldehyde-treated bovine pericardium (GLBP).

7. The prosthetic stabilizing device of claim 1, wherein the lining material is adapted to be substantially absorbed by a patient's body after implantation and to be substantially replaced by the patient's tissue.
8. The prosthetic stabilizing device of claim 7, wherein the lining material is adapted to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.
9. The prosthetic stabilizing device of claim 1, wherein at least one surface of the lining approximates a contour of a surface of at least one of the tibial component and the femoral component to which the lining is mounted.
10. The prosthetic stabilizing device of claim 1, wherein at least a portion of the lining is adaptable to the shape of the at least one of the tibial component and the femoral component to which the lining is mounted.
11. The prosthetic stabilizing device of claim 1, wherein the lining is mounted to the tibial component and includes an outer surface that approximates a contour of a surface of the femoral component most likely coming into contact therewith.
12. The prosthetic stabilizing device of claim 11, wherein the contour of the femoral component approximates an inner surface of at least one of a prosthetic medial condyle element and a prosthetic lateral condyle element partially defining the prosthetic intercondylar channel.

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13. The prosthetic stabilizing device of claim 1, wherein the lining is mounted to the femoral component and includes an outer surface that approximates a contour of a surface of the tibial component passing into the prosthetic intercondylar channel.

14. The prosthetic stabilizing device of claim 1, wherein the lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.

15. The prosthetic stabilizing device of claim 14, wherein the lining material is loaded with a clotting agent that includes concentrated platelets.

16. The prosthetic stabilizing device of claim 14, wherein the lining material is loaded with an antibiotic agent that includes gentamicin.

17. The prosthetic stabilizing device of claim 1, wherein:  
the tibial component includes a stabilizing post at its proximal end adapted to be received within the intercondylar channel of the femoral component; and  
the lining is adapted to be mounted to at least one of the stabilizing post and a surface of the intercondylar channel.

18. The prosthetic stabilizing device of claim 1, wherein the lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

19. The prosthetic stabilizing device of claim 18, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroblast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.

20. The prosthetic stabilizing device of claim 1, wherein the lining material is loaded with a growth stimulating factor.

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21. The prosthetic stabilizing device of claim 20, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB- $\beta$ ), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EGF), transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer, TGF- $\beta$  gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IGF).

22. The prosthetic stabilizing device of claim 1, wherein the lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

23. A prosthetic stabilizing device for use with a knee replacement prosthesis that includes a tibial component adapted to be mounted to a patient's tibia and a femoral component adapted to be mounted to the patient's femur, where the tibial component interfaces with the femoral component to simulate the biomechanics of a knee joint, the stabilizing device comprising:

a first lining adapted to be mounted to at least one of a tibial component and a femoral component so that the first lining is positioned between the tibial component and the femoral component approximate a prosthetic intercondylar channel to supplement periarticular stability between the tibial component and the femoral component; and

a second lining adapted to be mounted to at least the other of the tibial component and the femoral component so that the second lining is positioned between the tibial component and the femoral component approximate the prosthetic intercondylar channel to supplement periarticular stability of the tibial component and the femoral component;

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the first lining being comprised of a first lining material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials; and

the second lining being comprised of a second lining material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

24. The prosthetic stabilizing device of claim 23, wherein:

the first lining includes at least one fastener comprised of a first fastener material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials; and

the second lining includes at least one fastener comprised of a second fastener material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

25. The prosthetic stabilizing device of claim 24, wherein the fastener material includes at least one, or an equivalent, of:

a poly-L-lactic acid material; and  
collagen.

26. The prosthetic stabilizing device of claim 25, wherein the fasteners are taken from a group consisting of:

screws;  
snaps;  
clips;  
keyways; and  
rivets.

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27. The prosthetic stabilizing device of claim 23, wherein the lining material includes at least one, or an equivalent, of:

- extra cellular matrices (ECMs);
- poliglecaprone 25;
- polydioxanone;
- surgical gut suture (SGS);
- gut;
- polyglactin 910;
- human autograft tendon material;
- collagen fiber;
- poly-L-lactic acid (PLLA);
- polylactic acid (PLA);
- polylactides (PLA);
- racemic form of polylactide (D,L-PLA);
- poly(L-lactide-co-D,L-lactide);
- polyglycolides (PGA);
- polyglycolic acid (PGA);
- polycaprolactone (PCL);
- polydioxanone (PDS);
- polyhydroxyacids; and
- resorbable plate material.

28. The prosthetic stabilizing device of claim 27, wherein the extra cellular matrices (ECMs) includes at least one, or an equivalent, of:

- porcine small intestine submucosa (SIS);
- xenogeneic small intestine submucosa (xSIS);
- urinary bladder submucosa (UBS);
- laminated intestinal submucosa; and
- glutaraldehyde-treated bovine pericardium (GLBP).

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29. The prosthetic stabilizing device of claim 23, wherein the lining material is adapted to be substantially absorbed by a patient's body after implantation and to be substantially replaced by the patient's tissue.

30. The prosthetic stabilizing device of claim 29, wherein the lining material is adapted to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

31. The prosthetic stabilizing device of claim 23, wherein:

the first lining is mounted to the tibial component and the second lining is mounted to the femoral component; and

the first lining mounted to the tibial component includes an outer surface that approximates a first contour potentially coming into contact therewith, the first contour being that of at least one of the femoral component and the second lining.

32. The prosthetic stabilizing device of claim 23, wherein:

the second lining is mounted to the tibial component and the first lining is mounted to the femoral component; and

the second lining mounted to the tibial component includes an outer surface that approximates a first contour potentially coming into contact therewith, the first contour being that of at least one of the femoral component and the first lining.

33. The prosthetic stabilizing device of claim 23, wherein at least one of the first lining material and the second lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.

34. The prosthetic stabilizing device of claim 33, wherein at least one of the first lining material and the second lining material is loaded with a clotting agent that includes concentrated platelets.



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35. The prosthetic stabilizing device of claim 33, wherein at least one of the first lining material and the second lining material is loaded with an antibiotic agent that includes gentamicin.

36. The prosthetic stabilizing device of claim 23, wherein at least one of the first lining material and the second lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

37. The prosthetic stabilizing device of claim 36, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroblast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.

38. The prosthetic stabilizing device of claim 23, wherein at least one of the first lining material and the second lining material is loaded with a growth stimulating factor.

39. The prosthetic stabilizing device of claim 38, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB- $\beta$ ), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EGF), transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer, TGF- $\beta$  gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IGF).

40. The prosthetic stabilizing device of claim 23, wherein at least one of the first lining material and the second lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

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41. A knee prosthesis comprising:

- a tibial component adapted to be mounted to a patient's tibia;
- a femoral component adapted to be mounted to a patient's femur, and to be pivotally coupled to the tibial component to form a prosthetic knee joint; and
- a lining adapted to be mounted to at least one of the tibial component and the femoral component in the prosthetic knee joint so that the lining is positioned between the tibial component and the femoral component approximate a prosthetic intercondylar channel of the femoral component to supplement periarticular stability between the tibial component and the femoral component; and
- the lining being comprised of a lining material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

42. The knee prosthesis of claim 41, further comprising at least one fastener for mounting the lining to one of the tibial component and the femoral component, wherein the fasteners are comprised of a fastener material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

43. The knee prosthesis of claim 42, wherein the fastener material includes at least one, or an equivalent, of:

- a poly-L-lactic acid material; and
- collagen.

44. The knee prosthesis of claim 42, wherein the fasteners are taken from a group consisting of:

- screws;
- snaps;
- clips;

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keyways; and  
rivets.

45. The knee prosthesis of claim 41, wherein the lining material includes at least one, or an equivalent, of:

extra cellular matrices (ECMs);  
poliglecaprone 25;  
polydioxanone;  
surgical gut suture (SGS);  
gut;  
polyglactin 910;  
human autograft tendon material;  
collagen fiber;  
poly-L-lactic acid (PLLA);  
polylactic acid (PLA);  
polylactides (PLA);  
racemic form of polylactide (D,L-PLA);  
poly(L-lactide-co-D,L-lactide);  
polyglycolides (PGA);  
polyglycolic acid (PGA);  
polycaprolactone (PCL);  
polydioxanone (PDS);  
polyhydroxyacids; and  
resorbable plate material.

46. The knee prosthesis of claim 45, wherein the extra cellular matrices (ECMs) includes at least one, or an equivalent, of:

porcine small intestine submucosa (SIS);  
xenogeneic small intestine submucosa (xSIS);  
urinary bladder submucosa (UBS);

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laminated intestinal submucosa; and  
glutaraldehyde-treated bovine pericardium (GLBP).

47. The knee prosthesis of claim 41, wherein the lining material is adapted to be substantially absorbed by a patient's body after implantation and to be substantially replaced by the patient's tissue.

48. The knee prosthesis of claim 47, wherein the lining material is adapted to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

49. The knee prosthesis of claim 41, wherein at least one surface of the lining approximates a contour of a surface of at least one of the tibial component and the femoral component to which the lining is mounted.

50. The knee prosthesis of claim 41, wherein at least a portion of the lining is adaptable to the topography of at least one of the tibial component and the femoral component to which the lining is mounted.

51. The knee prosthesis of claim 41, wherein the lining is mounted to the tibial component and includes an outer surface that approximates a contour of a surface of the femoral component most likely coming into contact therewith.

52. The knee prosthesis of claim 51, wherein the contour of an outer surface of the femoral component approximates an inner surface of at least one of a prosthetic medial condyle element and a prosthetic lateral condyle element partially defining the prosthetic intercondylar channel.

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53. The knee prosthesis of claim 41, wherein the lining is mounted to the femoral component and includes an outer surface that approximates a contour of a surface of the tibial component passing into the prosthetic intercondylar channel.
54. The knee prosthesis of claim 41, wherein the lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.
55. The knee prosthesis of claim 54, wherein the lining material is loaded with a clotting agent that includes concentrated platelets.
56. The knee prosthesis of claim 54, wherein the lining material is loaded with an antibiotic agent that includes gentamicin.
57. The knee prosthesis of claim 41, wherein:  
the tibial component includes a stabilizing post at its proximal end adapted to be received within the intercondylar channel of the femoral component; and  
the lining is adapted to be mounted to at least one of the stabilizing post and a surface of the intercondylar channel.
58. The knee prosthesis of claim 41, wherein the lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.
59. The knee prosthesis of claim 58, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroblast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.
60. The knee prosthesis of claim 41, wherein the lining material is loaded with a growth stimulating factor.

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61. The knee prosthesis of claim 60, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB- $\beta$ ), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EGF), transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer, TGF- $\beta$  gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IGF).

62. The knee prosthesis of claim 41, wherein the lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

63. A knee prosthesis comprising:

- a femoral component adapted to be mounted to a patient's femur;

- a tibial component adapted to be mounted to the patient's tibia, the tibial component including a stabilizing post at its proximal end adapted to be received within a prosthetic intercondylar channel of the femoral component to form a prosthetic hinge-type joint coupling; and

- a lining mounted to at least one of the stabilizing post and an inner surface of the femoral component at least partially defining the prosthetic intercondylar channel to, at least temporarily, supplement periarticular stability between the stabilizing post and the prosthetic intercondylar channel;

- the lining being comprised of a lining material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

64. The knee prosthesis of claim 63, further comprising at least one fastener for mounting the lining to at least one of the stabilizing post of the tibial component and the inner surface of the femoral component at least partially defining the prosthetic

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intercondylar channel, wherein the fastener is comprised of a fastener material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

65. The knee prosthesis of claim 63, wherein the lining material includes at least one, or an equivalent, of:

- extra cellular matrices (ECMs);
- poliglecaprone 25;
- polydioxanone;
- surgical gut suture (SGS);
- gut;
- polyglactin 910;
- human autograft tendon material;
- collagen fiber;
- poly-L-lactic acid (PLLA);
- polylactic acid (PLA);
- polylactides (Pla);
- racemic form of polylactide (D,L-Pla);
- poly(L-lactide-co-D,L-lactide);
- polyglycolides (PGA);
- polyglycolic acid (PGA);
- polycaprolactone (PCL);
- polydioxanone (PDS);
- polyhydroxyacids; and
- resorbable plate material.

66. The knee prosthesis of claim 65, wherein the extra cellular matrices (ECMs) includes at least one of:

- porcine small intestine submucosa (SIS);
- xenogenic small intestine submucosa (xSIS);

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urinary bladder submucosa (UBS);  
laminated intestinal submucosa; and  
glutaraldehyde-treated bovine pericardium (GLBP).

67. The knee prosthesis of claim 63, wherein the lining material is adapted to be substantially absorbed by a patient's body after implantation and to be substantially replaced by the patient's tissue.

68. The knee prosthesis of claim 67, wherein the lining material is adapted to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

69. The knee prosthesis of claim 63, wherein the lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.

70. The knee prosthesis of claim 69, wherein the lining material is loaded with a clotting agent that includes concentrated platelets.

71. The knee prosthesis of claim 69, wherein the lining material is loaded with an antibiotic agent that includes gentamicin.

72. The knee prosthesis of claim 63, wherein the lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

73. The knee prosthesis of claim 72, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroblast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.



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74. The knee prosthesis of claim 63, wherein the lining material is loaded with a growth stimulating factor.

75. The knee prosthesis of claim 74, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB- $\beta$ ), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EGF), transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer, TGF- $\beta$  gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IGF).

76. The knee prosthesis of claim 63, wherein the lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

77. A stabilizing device for use with a joint reconstruction surgical procedure, where the reconstructed joint includes an interface between at least two bones exhibiting biomechanics of a joint, the stabilizing device comprising:

a lining adapted to be mounted to at least one of a first bone and a second bone so that the lining is positioned between an interface of the first bone and the second bone to assist in maintaining the stability and functionality of a joint formed at least in part by the interface of the first and second bone; and

the lining comprises a lining material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

78. The stabilizing device of claim 77, further comprising at least one fastener for mounting the lining to at least one of the first bone and the second bone, wherein the fasteners are comprised of a fastener material selected from the group consisting of a

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biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

79. The stabilizing device of claim 78, wherein the fastener material includes at least one, or an equivalent, of:

- a poly-L-lactic acid material; and
- collagen

80. The stabilizing device of claim 78, wherein the fasteners are taken from a group consisting of:

- screws;
- snaps;
- clips;
- keyways; and
- rivets.

81. The stabilizing device of claim 77, wherein the lining material includes at least one, or an equivalent, of:

- extra cellular matrices (ECMs);
- poliglecaprone 25;
- polydioxanone;
- surgical gut suture (SGS);
- gut;
- polyglactin 910;
- human autograft tendon material;
- collagen fiber;
- poly-L-lactic acid (PLLA);
- polylactic acid (PLA);
- polylactides (Pla);
- racemic form of polylactide (D,L-Pla);

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poly(L-lactide-co-D,L-lactide);  
polyglycolides (PGa);  
polyglycolic acid (PGA);  
polycaprolactone (PCL);  
polydioxanone (PDS);  
polyhydroxyacids; and  
resorbable plate material.

82. The stabilizing device of claim 77, wherein the lining material is adapted to be substantially absorbed by a patient's body after implantation and to be substantially replaced by the patient's tissue.

83. The stabilizing device of claim 82, wherein the lining material is adapted to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

84. The stabilizing device of claim 77, wherein at least one of the first lining material and the second lining material is loaded with at least one of a tissue promotion agent, a clotting agent, and an antibiotic agent.

85. The stabilizing device of claim 84, wherein the lining material is loaded with a clotting agent that includes concentrated platelets.

86. The stabilizing device of claim 84, wherein the lining material is loaded with an antibiotic agent that includes gentamicin.

87. The stabilizing device of claim 77, wherein the lining material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

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88. The stabilizing device of claim 87, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroblast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.

89. The stabilizing device of claim 77, wherein the lining material is loaded with a growth stimulating factor.

90. The stabilizing device of claim 89, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB- $\beta$ ), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (EGF), transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer, TGF- $\beta$  gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IGF).

91. The stabilizing device of claim 77, wherein the lining material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

92. A method for providing at least temporary stability to a prosthetic knee joint which includes a tibial component interfacing a femoral component, the tibial and femoral components simulating at least certain biomechanics of a knee joint, the method comprising the step of:

mounting a stabilizing device to at least one of the femoral component and the tibial component to improve periarticular stability to a prosthetic knee joint, wherein the stabilizing device is comprised of a material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

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93. The method of claim 92, wherein the mounting step includes the step of fastening the stabilizing device to at least one of the femoral component and the tibial component with a fastener comprised of a material selected from the group consisting of a biologic material, a biologically reabsorbable material, and a combination of biologic and biologically reabsorbable materials.

94. The method of claim 93, wherein the fastener is taken from a group consisting of:

screws;  
snaps;  
clips;  
keyways; and  
rivets.

95. The method of claim 92, wherein the material includes at least one of a tissue formation promotion agent, a clotting agent, and an antibacterial agent.

96. The method of claim 95, wherein the material is adapted to be substantially absorbed by a patient's body after the mounting step and to be substantially replaced by the patient's tissue.

97. The method of claim 96, wherein the material is adapted to be substantially absorbed and replaced by the patient's tissue within approximately 6 months after implantation.

98. The method of claim 92, wherein the stabilizing device is contoured on at least one external surface to approximate the contour of the other one of the tibial component surface and the femoral component surface to which the device is mounted.

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99. The method of claim 92, wherein the stabilizing device is adaptable to be contoured to approximate the contour of at least the one of the tibial component surface and the femoral component surface to which the device is mounted.

100. The method of claim 92, wherein the material is loaded with at least one of connective tissue stem cells and connective tissue stem cell progenitors.

101. The method of claim 100, wherein the connective tissue stem cells and connective tissue stem progenitors are taken from the group consisting of: fibroblastic colony-forming cells, fibroblast colony-forming units (CFU-F), bone marrow stromal cells, mesenchymal stem cells (MSC), and vascular pericytes.

102. The method of claim 92, wherein the material is loaded with a growth stimulating factor.

103. The method of claim 102, wherein the growth stimulating factor is taken from the group consisting of: growth factor beta (GFB- $\beta$ ), basic fibroblast growth factor (bFGF), fibroblast growth factor (FGF), epidermal growth factor (BFG), transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), vascular endothelial growth factor (VEGF), connective tissue growth factor (CTGF), platelet-derived growth factor (PDGF), direct-mediated gene transfer, fibroblast-mediated gene transfer, myoblast-mediated gene transfer, TGF- $\beta$  gene family, adenovirus-mediated gene transfer, recombinant adenovirus-induced tendon adhesion formation, BMP-12, bone morphogenetic protein-2 gene transfer, growth and differentiation factor-5 (GDF-5), and insulin like growth factor (IGF).

104. The method of claim 92, wherein the material is loaded with at least one of hematopoietic stem cells and hematopoietic stem cells progenitors.

105. A knee prosthesis comprising:  
a tibial component adapted to be mounted to a patient's tibia;

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a femoral component adapted to be mounted to a patient's femur, and to be pivotally coupled to the tibial component to form a prosthetic knee joint; and

a lining being selectively attachable to at least one of the tibial component and the femoral component in the prosthetic knee joint so that the lining is adapted to be mounted between the tibial component and the femoral component approximate a prosthetic intercondylar channel of the femoral component to supplement periarticular stability between the tibial component and the femoral component, whereby repositioning or degradation of the liner does not appreciably hinder the functionality of the femoral component and the tibial component.